

REVIEW

The Primary Source: Tropical Forests and Our Future, by Norman Myers. W.W. Norton & Co., New York and London. 399 p. (1984). \$17.95.

The destruction of tropical forests of the world is not merely a problem of tropical countries themselves but is now regarded as a global problem of crisis proportions. The global nature of the problem is due to (1) the worldwide economic network which uses—and misuses—tropical forests; (2) the tragic global economic and technological consequences of the extinction of many thousands of plants and animals which live in these forests; and (3) the predicted effects of tropical deforestation on the world's climate, through direct effects on the water cycle and from the increased buildup of carbon dioxide in the atmosphere.

In this book, Myers (author of *The Sinking Ark* and many other books and magazine articles) makes a compelling case for the importance of tropical forests to the future well-being of humans as a whole. The first chapters introduce the reader to tropical forests, their rich diversity of organisms and complexity—and to their decline. The word “forest” does not merely signify an area covered with trees or other tall vegetation, but a natural rich assemblage of plants and animals which is self-regulating and represents the most massive and complex biotic community that can grow on the site. Tropical forests in Southeast Asia represent the culmination of about 70 million years of evolution of relationships between plants, animals and microbes and their environment. These forests are being irreversibly destroyed by man during this century—a virtual blink in evolutionary history.

The major destroyers are detailed in the next chapters of the book: commercial loggers, fuelwood gatherers, cattle raisers and forest farmers in need of more crop land. Each of these agents somehow ignores the diverse values of the forests to man in favor of some short term profits or benefits, with resulting virtually permanent degradation or conversion to open habitat. The next chapters detail the myriad uses and potential long term benefits of tropical forests, as sources of new or improved foods, pharmaceuticals (the cure for cancer lies in some tropical herb or tree), industrial chemicals, building materials, fuel energy from biomass, and environmental services such as watershed protection and climate control.

The final chapters provide some of the possible solutions to the global problem. They include long term investment in and management of forests by tropical countries themselves rather than conversion for short term profits. The management of forests as simply timber resources must be replaced by expanded long term research and management for all the benefits the forest ecosystems have to offer. Outside countries and agencies will also have to supply needed capital and expertise. Myers outlines some of the basic remedies only in the most general terms. The problem is too broad and complex to grapple with many specifics in this book. Myer's most important contribution is to educate the reader about the tropical forest and the need for solutions.

The book is very simply written and directed at the layman. Some parts may seem a bit redundant, or lacking in scientific rigor (especially concerning some of the environmental services) to more educated readers. Professional foresters have objected to Myer's definitions of "forest", "conversion", "destruction", etc. However, such foresters are among those who have consistently undervalued the benefits natural forests can provide and hastened their destruction. For example, a tree plantation is a forest type that can supply short term needs of wood and fuel, but is not a substitute for the natural forest ecosystem with its large biomass, self-regulating and regenerating capacity and biotic richness in plants and animals. In that sense, a tree plantation is not a real "forest" at all, but a kind of tree garden or orchard. Many logged over or degraded forests have also lost many of their natural forest attributes and most will not be able to regenerate into their original form. In Thailand, for example, the Forest Department inventories as "forests" some types of degraded habitats that can scarcely be considered to be forests any longer. This is common practice in most countries.

Everyone will enjoy and benefit from reading *The Primary Source*. A feeling of excitement about tropical forests and guarded optimism that some effective solutions will be found pervade the book.

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